

Power Transistors

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2SC2334

Silicon NPN Transistors



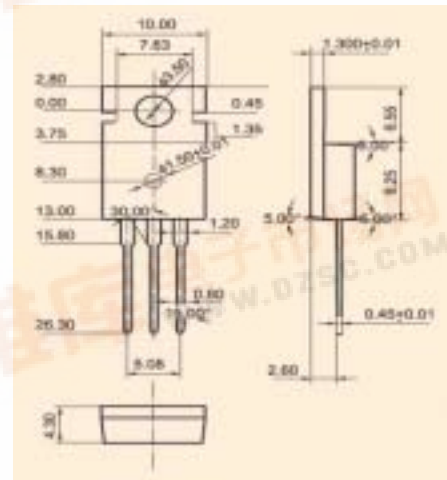
B C E

◆ Features

- . With TO-220 package
- . Complement to type 2SA1010
- . For high speed switching industrial use

◆ Absolute Maximum Ratings $T_c=25^\circ\text{C}$

SYMBOL	PARAMETER	RATING	UNIT
V_{CBO}	Collector to base voltage	150	V
V_{CEO}	Collector to emitter voltage	100	V
V_{EBO}	Emitter to base voltage	7	V
I_{CP}	Peak collector current	15	A
I_C	Collector current	7	A
P_C	Collector power dissipation	40	W
T_j	Junction temperature	150	$^\circ\text{C}$
T_{stg}	Storage temperature	-55~150	$^\circ\text{C}$



TO-220

◆ Electrical Characteristics $T_c=25^\circ\text{C}$

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
I_{CBO}	Collector-base cut-off current	$V_{CB}=100\text{V}; I_E=0$			10	μA
I_{EBO}	Emitter-base cut-off current	$V_{EB}=5\text{V}; I_C=0$			10	μA
I_{CEO}	Collector-emitter cut-off current					
V_{CBO}	Collector-base breakdown voltage					
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=200\text{mA}; I_B=0$	100			V
V_{EBO}	Emitter-base breakdown voltage					
$V_{CE(sat-1)}$	Collector-emitter saturation voltages	$I_C=5\text{A}; I_B=0.5\text{A}$			0.6	V
$V_{CE(sat-2)}$	Collector-emitter saturation voltages					
h_{FE-1}	Forward current transfer ratio	$I_C=3\text{A}; V_{CE}=5\text{V}$	40		240	
h_{FE-2}	Forward current transfer ratio	$I_C=0.5\text{A}; V_{CE}=5\text{V}$	40			
h_{FE-3}	Forward current transfer ratio	$I_C=5\text{A}; V_{CE}=5\text{V}$	20			
$V_{BE(sat)1}$	Base-emitter saturation voltages	$I_C=5\text{A}; I_B=0.5\text{A}$			1.5	V
t_{on}	Turn-on time	$V_{CC}=50\text{V}; I_C=5\text{A}$ $I_{B1}=-I_{B2}=0.5\text{A}$ $R_L=50\Omega$			0.5	μs
t_{stg}	Storage time				0.5	μs
t_f	Fall time				1.5	μs

◆ h_{FE-2} classification

R	O	Y
40-80	70-140	120-240